

# Less Than Narrowbanding: One Year to Go

*Presented to the Public Safety Communications Advisory Commission  
(PSCC)*

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Public Safety Interoperable  
Communications Office

# Overview



- Narrowbanding Overview
- National Progress to Date
- Status of Narrowbanding in AZ
- Meeting the Mandate
- Cost and Funding Considerations
- Moving Forward & Resource Lists

# Background



- “Narrowbanding” refers to a requirement by the Federal Communications Commission (FCC) that — on or before January 1, 2013 — all existing licensees on the VHF and UHF Spectrum implement equipment designed to operate on channel bandwidths of 12.5 kHz or less or that meets a specific efficiency standard.
- After January 1, 2013, licensees not operating at 12.5 KHz efficiency will be in violation of the Commission's rules and could be subject to FCC enforcement action, which may include admonishment, monetary fines, or loss of license.
- Ultimately equipment will need to operate on bandwidths of 6.25 kHz or less. (Currently no dead-line is set.)

# Requests for Waiver



- The January 1, 2013 deadline will not be extended. Therefore, any licensee requiring additional time must request a waiver of the deadline.
- July 2011 - Waiver Guidance Public Notice ([DA 11-1189](#))
  - Waiver requests must be well-documented to meet the FCC's waiver standard and will not be routinely granted
  - Licensees should ask for only as much time as necessary to achieve compliance in a timely fashion
  - Licensees should support waiver requests with information on system size, complexity, progress to date, proposed schedule and funding sources
  - Regionally coordinated requests are encouraged when practical
- Licensees should have filed waiver requests before the end of 2011; therefore, we encourage [immediate contact with the FCC's Public Safety & Homeland Security Bureau.](#)

# Potential Consequences



- Narrowbanding is the responsibility of individual licensees and is essential for day to day public safety operability.
- As an agency and Commission tasked with advancing interoperability, providing education on operability issues that may impact interoperability is important.
- The Enforcement Bureau's Spectrum Enforcement Division will investigate wideband interference complaints. If a violation is found to have occurred, potential sanctions include:
  - Admonishments, License revocation, and/or Monetary forfeitures
    - » Up to \$16,000 for each such violation or each day of a continuing violation
    - » Up to \$112,500 for any single act or failure to act.

# National Progress to Date

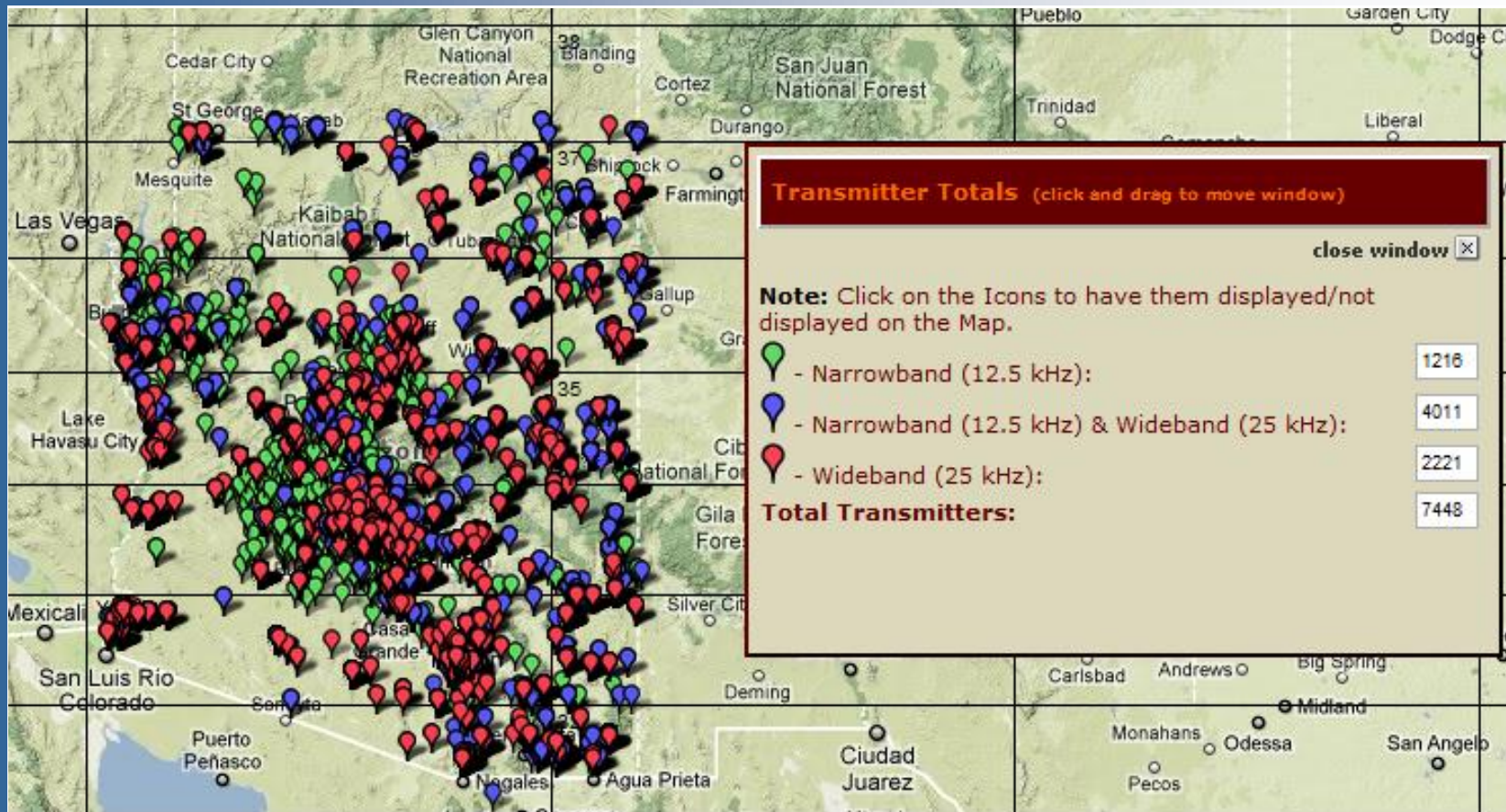


DATE	Total Licenses w/WB Only	Total Licenses in Transition	Total Licenses w/NB Only	Total Licenses
Jul-2010	78815	14573	15891	109279
	72.1%	13.3%	14.5%	
May-2011	68170	23420	17700	109290
	62.4%	21.4%	16.2%	
Aug-2011	63020	27484	18556	109060
	57.8%	25.2%	17.0%	
Nov-2011	55435	33195	20033	108663
	51.0%	30.5%	18.4%	
<b>Feb-08-2012</b>	<b>45924</b>	<b>32426</b>	<b>20163</b>	98513
	<b>46.6%</b>	<b>32.9%</b>	<b>20.5%</b>	

•Source: [http://www.publicsafetytools.info/narrowband/national\\_tracking.php](http://www.publicsafetytools.info/narrowband/national_tracking.php)



# Arizona Licensing Status



- As of February 3, 2012

- ~ 16% Narrowband
- ~ 54% Mixed
- ~ 30% Wideband

# Narrowband Licensing Status



- As of February 3, 2012:

		By FRN			
REGION	STATE	# NB	# WB	Total	% NB
Total		252	273	525	48%
Central	AZ	31	52	83	37%
Eastern	AZ	47	39	86	55%
Northern	AZ	64	66	130	49%
Southern	AZ	46	60	106	43%
Western	AZ	64	56	120	53%

*These results are from a licensing perspective only and do not reflect narrowband compliance from an equipment standpoint.*



# Narrowband Licensing Status, cont.



- As of February 3, 2012:

		By # of Fixed Transmitters			
REGION	STATE	# NB	# WB	Total	% NB
Total		5227	2221	7448	70%
Central	AZ	937	732	1669	56%
Eastern	AZ	707	342	1049	67%
Northern	AZ	1386	283	1669	83%
Southern	AZ	1015	546	1561	65%
Western	AZ	1182	318	1500	79%

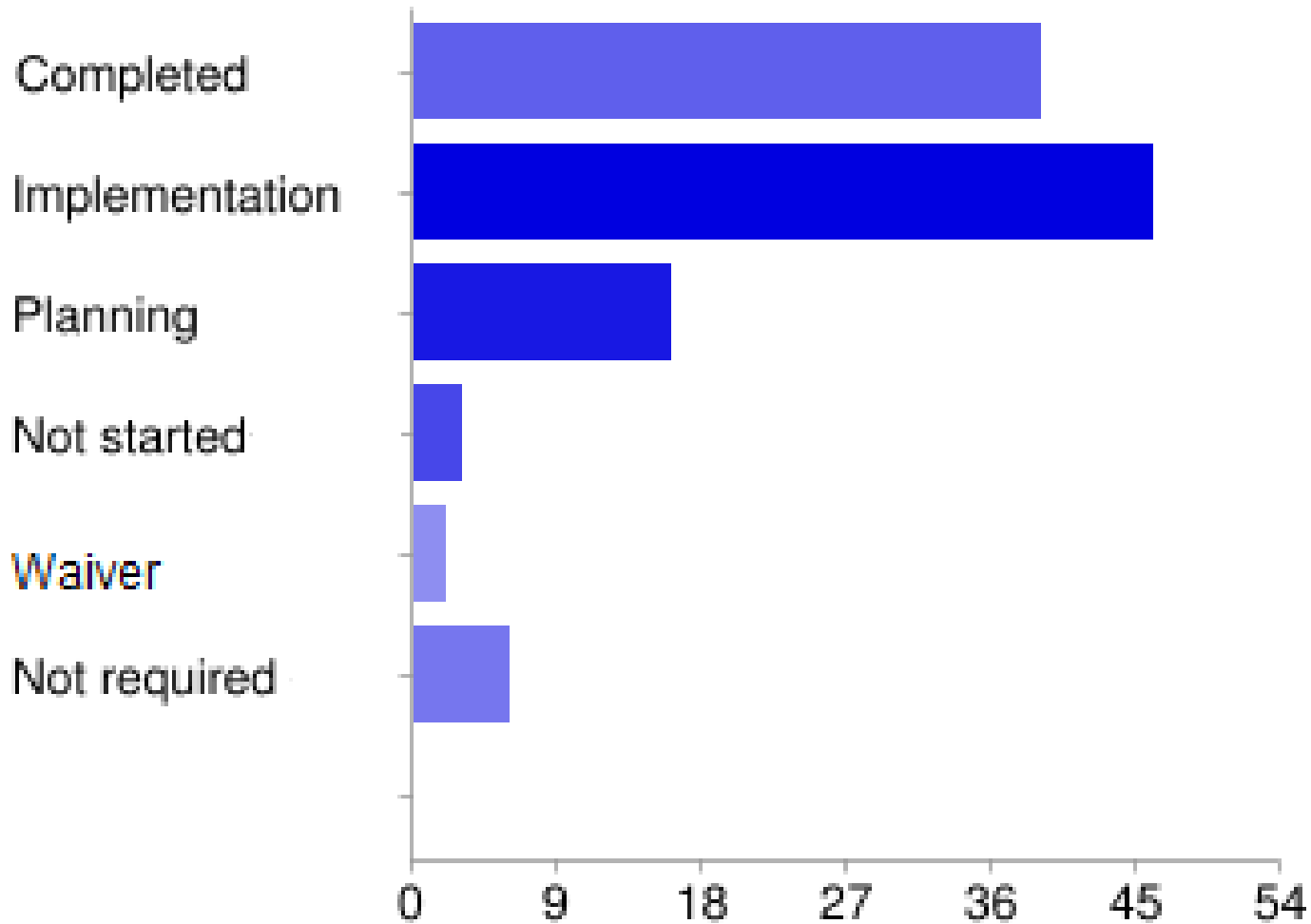
*These results are from a licensing perspective only and do not reflect narrowband compliance from an equipment standpoint.*

# Narrowband Survey



- The PSIC Office conducted a survey of stakeholders and Arizona FCC Public Safety License Holders - Jan 3-31, 2012.
- The survey included 13 high-level questions relevant to the current status and future plans (if applicable) for the narrowbanding conversion.
- 115 respondents from across Arizona participated in the survey.
- Note: Arizona has approximately 170 law enforcement agencies, 255 fire districts, 78 ground ambulance companies, and 18 licensed air ambulance companies. *Responses to the survey are not meant to be representative of all first responder agencies.*

# What is the status of your narrowbanding conversion?



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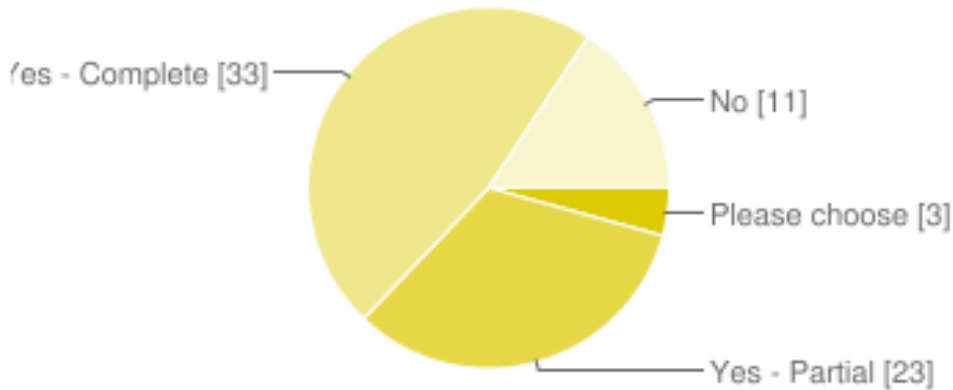


<b>Completed:</b> We have modified our FCC license, reprogrammed all subscriber gear, and are currently operating only in narrowband mode.	39	34%
<b>Implementation Phase:</b> Funding has been identified and equipment is scheduled to be or has been purchased or reprogrammed.	46	40%
<b>Planning Phase:</b> Discussions with surrounding agencies have occurred and we are developing an implementation plan.	16	14%
<b>Not started</b>	3	3%
We plan to request a <b>waiver</b> from the FCC.	2	2%
<b>Not required</b> - We currently operate on or are transitioning to a 700/800 MHz System.	6	5%

# Survey Status, *cont.*

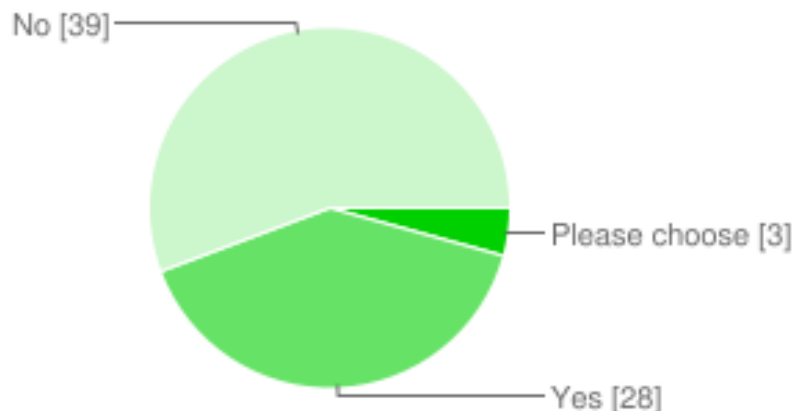


**Have you identified funding for conversion to narrowband?**



Please choose	3	3%
Yes - Partial	23	20%
Yes - Complete	33	29%
No	11	10%

**Do you have a documented migration plan?**

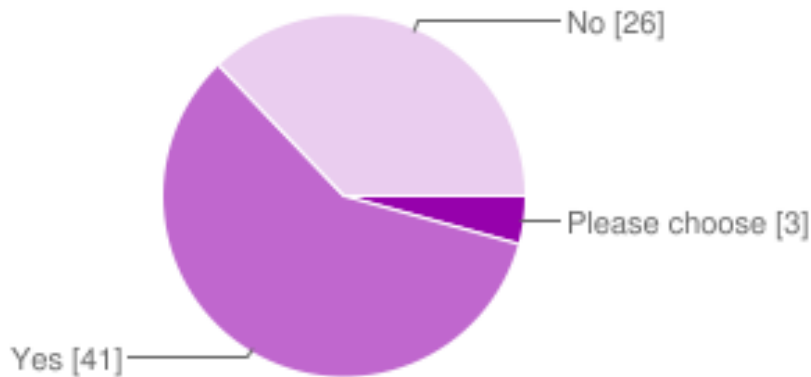


Please choose	3	3%
Yes	28	24%
No	39	34%

# Survey Status, *cont.*

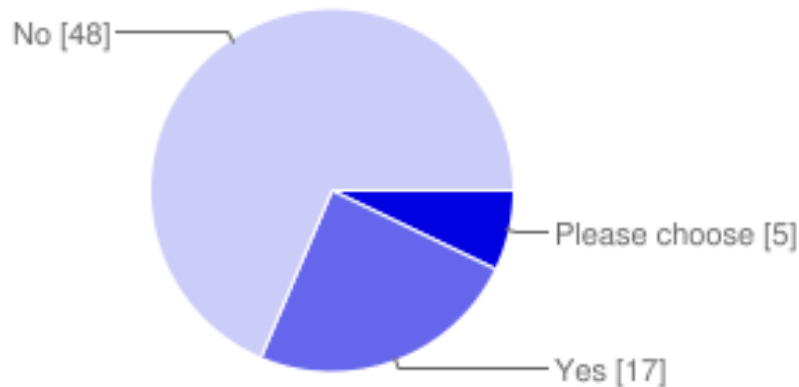


Have you modified your FCC license to meet the narrowbanding requirements?



Please choose	3	3%
Yes	41	36%
No	26	23%

Have you reprogrammed your subscriber gear?

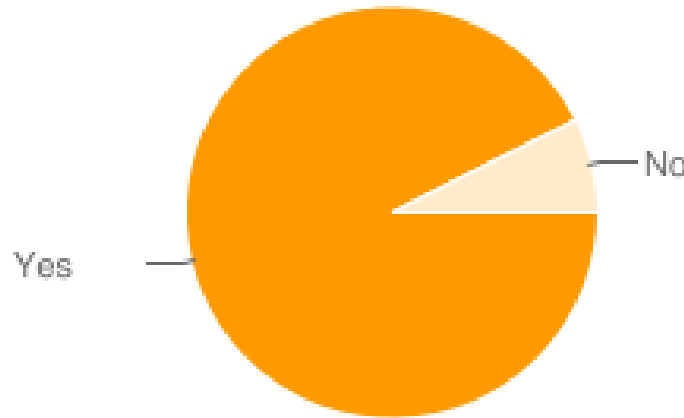


Please choose	5	4%
Yes	17	15%
No	48	42%

# Do you intend to submit a waiver to the FCC?



- For those in the Planning or Implementation phase: Will you be completely migrated by January 1, 2013?



- If not, do you intend to submit a waiver to the FCC?
  - Yes - Our waiver has been formally submitted: 2
  - Yes - We have not started drafting the waiver: 4
  - No - We do not intend to submit a waiver: 1



# Meeting the Mandate



- Licensees will need to convert or replace their existing VHF and UHF wideband (25 kHz) systems and update their License with the FCC.
- Options to meet the narrowbanding mandate:
  - Continuing to use analog systems in a narrowband mode
  - Moving to digital radio systems
  - Moving to another frequency band such as 700 or 800 MHz
- Some jurisdictions in Arizona are choosing to join established regional shared systems over upgrading their legacy wideband system.

# Narrowbanding Considerations



- Consult your public safety leadership and those who maintain your radio systems.
- Determine if your system needs re-programming or full replacement.
- Collaborate with neighboring communities to determine their narrowbanding plans.
- Prepare for a slight decrease in the level of system coverage when narrowbanding.
- Modify your FCC licenses to show the new narrowband emission.
- Develop a realistic timeline as well as budget of the costs involved.
- Consider "non-voice" radios when reviewing the status of your local radio systems.

# Cost and Funding Considerations



- The cost of narrowbanding will vary depending on the nature of each licensee's existing system.
  - Narrowbanding generally does not require a system upgrade, though licensees may combine narrowbanding with other scheduled upgrades or modifications
  - Narrowbanding costs will be more substantial for systems that require additional sites and for older systems that require replacement of existing equipment

# Grant Funding



- Many grants that fund interoperable communications equipment allow grant funds to be used for narrowband-related activities, including:
  - Development of narrowband plans
  - Assessment of narrowband compliant assets and capabilities
  - Training associated with narrowband transition
  - Replacement of non-narrowband compliant equipment
  - Acquiring/upgrading tower sites needed to comply with narrowband conversion
  - Reprogramming existing equipment to comply with narrowband conversion

# Cost and Funding Considerations



- Many licensees have provided for narrowbanding funding in their existing state/local budgets.
- However, some licensees may require federal funding.
- FCC has been working with federal agencies (including DHS, DOJ, and USDA) to identify potential funding sources.
  - Information and links are posted on the FCC narrowbanding webpage: [www.fcc.gov/narrowbanding](http://www.fcc.gov/narrowbanding)

# FY2012 Grant Funding



- SAFECOM is once again highlighting the importance of narrowbanding in their grant guidance for Federal FY2012 Grant Programs.
  - Priority 2: Statewide Planning for Emergency Communications
    - » Assessment of capabilities needs and remaining gaps (e.g., NECP Goal, narrowband assessments, exercises)
  - Priority 4: Other Integral Emergency Communications Activities
    - » Activities that ensure compliance with the FCC narrowband mandate
  - Priority 5: Standards-based Equipment
    - » Meet the FCC narrowband mandate
- Note: *Some Federal grants do not allow construction or similar ground-disturbing activities. Consult the specific grant guidance and the grant office.*

# AZDOHS Grant Information



- 2012 SHSGP Applications are due no later than 5:00 pm on March 2, 2012. AZDOHS Held Grant Information Seminars in January
- Information on the AZDOHS Website:
  - [FFY 2012 Homeland Security Grant Program \(HSGP\) Grant Information Seminar Presentation](#)
  - [FFY 2012 SHSGP Timeline](#)
  - FFY 2012 HSGP Guidance (Currently unavailable. Please refer to the [FFY 2011 HSGP Guidance](#))
  - [State Homeland Security Strategy](#)
  - [Regional Advisory Council Grant Funding Guidelines](#)
  - [Target Capabilities Assessment](#)
  - [FFY 2011 Safecom Guidance](#)
  - [FFY 2012 Application](#)



# Moving Forward



- Narrowbanding is the responsibility of individual licensees
- Narrowbanding is essential for operability.
- As an agency and commission tasked with advancing interoperability, providing education on operability issues that may impact interoperability is important.
- Outreach regarding need for licensee Narrowbanding Compliance will continue to be provided by PSIC.
- We are working with the FCC to schedule a Narrowband webcast in Arizona.
- We are coordinating with FCC to reach license holders who have out of date information in the FCC database.

# Resources



- PSIC Website: [www.azpsic.gov/library/narrowbanding/](http://www.azpsic.gov/library/narrowbanding/)
  - A number of resources, helpful information and links to additional narrowbanding sites.
- Public Safety Tools Narrowbanding Site:  
[www.publicsafetytools.info/narrowband/start\\_narrowband.php](http://www.publicsafetytools.info/narrowband/start_narrowband.php)
  - Tools for agencies to review the narrowbanding status of surrounding agencies in their jurisdiction. Includes the Narrowband License Status Tool and the Narrowband Summary Tracker.
- FCC: Guidance For Submission Of Requests For Waiver And Other Matters: [www.azpsic.gov/library/narrowbanding/DA-11-1189A1\\_Waiver\\_Guidance.pdf](http://www.azpsic.gov/library/narrowbanding/DA-11-1189A1_Waiver_Guidance.pdf)
  - This Public Notice provides guidance for licensees that intend to submit requests for waiver of the deadline and sets forth additional information regarding the transition to narrowband technology.

# Additional Resources



- DHS Office of Emergency Communications ([oeq@hq.dhs.gov](mailto:oeq@hq.dhs.gov))
  - » [A Practical Guide to Narrowbanding](#)
- SAFECOM
  - » <http://www.safecomprogram.gov/SAFECOM/grant/default.htm>
- FEMA
  - » [www.fema.gov/grants](http://www.fema.gov/grants)
- DOJ National Institute of Justice
  - » <http://www.ojp.usdoj.gov/nij/topics/technology/communication/radios/fcc-narrowbanding.htm>
- USDA Rural Development Community Programs
  - » [http://www.rurdev.usda.gov/HCF\\_CF.html](http://www.rurdev.usda.gov/HCF_CF.html)
- <http://www.npstc.org/narrowbanding.jsp>
  - » Provides a list (by state) of public safety communications professionals who have volunteered to be points of contact to assist in narrowbanding

# FCC Website and Contacts



FCC Narrowbanding Website:

- [www.fcc.gov/narrowbanding](http://www.fcc.gov/narrowbanding)

FCC Narrowbanding Mailbox:

- [narrowbanding@fcc.gov](mailto:narrowbanding@fcc.gov)

Public Safety and Homeland Security Bureau Contacts:

- Roberto Mussenden
  - » 202-418-1428
  - » Roberto.Mussenden@fcc.gov
- Zenji Nakazawa
  - » 202-418-7949
  - » Zenji.Nakazawa@fcc.gov



**Further Discussion; Questions?**

**Thank You!**

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